REMARKS

This application has been carefully reviewed in light of the Office Action dated May 17, 2004 (Paper No. 18). Claims 1 to 67 are pending in the application, with Claims 1 to 9, 25 to 29, 48 to 50, 53, 57 to 59 and 62 having been withdrawn from consideration. Of the claims currently under consideration, Claims 10, 12, 35, 51, 52, 55, 60, 62 and 64 are independent. Reconsideration and further examination are respectfully requested.

As an initial matter, Applicants thank the Examiner for the continued allowance of Claims 20 to 24, 30 to 34, 46, 47, 54, 56, 63, 65 and 67, as well as the continued indication that 13, 14, 36 to 38, 41, 42, 44 and 66 contain allowable subject matter and would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 19, 20, 25, 29, 53, 54, 62 and 63 have been amended to correct minor typographical errors. Specifically Claim 19 has been amended to replace "repeating the sub-steps a) - c) of said merging step" to read "repeating the sub-steps a) to c) of said merging step". Additionally, Claims 20, 25, 29, 53, 54, 62 and 63 have been amended to remove duplicated or redundant articles.

Claims 10 to 12, 15 to 18, 35, 39, 40, 43, 51, 52, 55, 60, 61 and 64 were rejected under 35 U.S.C. § 103(a) as being unpatentable over "Region Growing and Region Merging Image Segmentation" (Ikonomakis) in view of "Seeded Region Growing" (Adams); and Claims 19 and 45 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Ikonomakis and Adams in view of "Image Segmentation and

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Approximation Through Surface Type Labelling and Region Merging" (Lim).

Reconsideration and withdrawal of these rejections are respectfully requested.

Turning now to specific claim language, independent Claim 10 is directed to a method of segmenting an image comprising a plurality of pixels. The method includes: allocating one or more pixels as seeds; growing regions from the seeds so as to segment the image into regions, wherein only a number of pixels that border the regions are considered, the number being smaller than a total number of pixels that border the regions, and the considered pixel that is most similar in a property to a region bordered by the considered pixel is appended to the region to form an expanded region and the property of the expanded region is updated; and repeating said growing step until no pixels bordering the regions are available.

Applicants have amended Claim 10 in accordance with the Examiner's helpful suggestions on pages 2 and 3 of the Office Action dated May 17, 2004. Specifically, Claim 10 now emphasizes that only a lesser subset of the total number of border pixels is considered. The lesser subset is characterized in Claim 10 as including "only a number of pixels that border the regions" wherein the number of considered pixels is "smaller than a total number of pixels that border the regions." Applicants respectfully submit that independent Claim 10 is distinguishable over Ikonomakis. Furthermore, Adams fails to cure the deficiencies of Ikonomakis. Specifically, Adams discloses that a set T of all unallocated pixels that border the growing regions is searched for a pixel having a minimum value of δ which is a measure of the difference between the pixel and an adjoining region. Therefore, modification of Ikonomakis in light of the disclosure of Adams does not disclose nor suggest Applicants' use of only a number of pixels that border

the regions wherein the number of considered pixels is smaller than a total number of pixels that border the regions. In light of the forgoing discussion, Applicants respectfully submit that Claim 10 is in condition for allowance.

Turning now to amended independent Claims 12, 35, 51, 52, 55, 60, 61 and 64, each of these claims have been amended in accordance with the Examiner's suggestion as discussed above. Therefore, Applicants respectfully submit that Claims 12, 35, 51, 52, 55, 60, 61 and 64 are also in condition for allowance.

The other pending claims in this application are each dependent from the independent claims discussed above and are therefore believed patentable for the same reasons. Because each dependent claim is also deemed to define an additional aspect of the invention, however, individual consideration of each dependent claim on its own merits is respectfully requested.

In view of the foregoing amendments and remarks, the entire application is believed to be in condition for allowance, and such action is respectfully requested at the Examiner's earliest convenience.

Applicants' undersigned attorney may be reached in our Costa Mesa, CA office at (714) 540-8700. All correspondence should continue to be directed to our below-listed address.

Respectfully submitted,

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